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Ships and marine technology — Installation, inspection and maintenance of container securing devices for ships

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INTERNATIONAL STANDARD

ISO 17905

First edition
2015-12-15

Ships and marine technology — Installation, inspection and maintenance of container securing devices for ships

Navires et technologie maritime — Installation, contrôle et maintenance des dispositifs de fixation des containers pour navires

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Foreword

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The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*

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INTERNATIONAL STANDARD ISO 17905:2015(E)

Ships and marine technology — Installation, inspection and maintenance of container securing devices for ships

1 Scope

This International Standard specifies the requirements for installation, inspection and maintenance of container securing devices for ships (hereinafter referred to as "securing devices") to ensure their safe use.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3874:1997, *Series 1 freight containers — Handling and securing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
loose fittings
securing devices not welded to the hull

3.2
fixed fittings
securing devices welded to the hull

3.3
securing fittings
securing devices used between containers and between a container and the deck, hatch cover, or bilge, to prevent the container from longitudinal, transverse, or vertical movements relative to the hull during transportation

3.4
lashing fittings
securing devices used to lash a container to a hatch cover or deck

3.5
buttress fittings
securing devices used to eliminate the clearance between a container and a longitudinal bulkhead and transfer any transverse forces to the longitudinal bulkhead

4 Installation, inspection and maintenance

4.1 Securing devices

4.1.1 Types

Securing devices can be divided into three types, namely securing fittings, lashing fittings and buttress fittings, each type divided into fixed fittings and loose fittings.

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4.1.2 Securing fittings

The structural types of securing fittings are given in Table 1.

Table 1 — Structural types of securing fittings

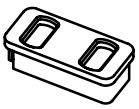
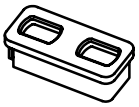
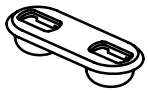
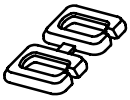
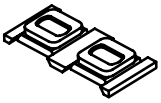
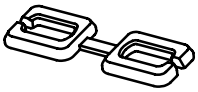
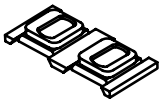
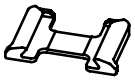
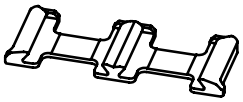
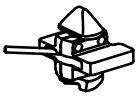
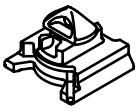
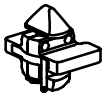
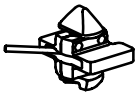
Type	Code	Name	Illustration	Code	Name	Illustration
Fixed fitting	A11	Raised socket		C11	Flush socket	
	A12	Raised transverse double socket		C12	Transverse double flush socket	
	A13	Raised longitudinal double socket		C13	Longitudinal double flush socket	
	A21	Raised elongated socket		C14	Quadruple flush socket	
	A31	Longitudinal sliding socket		D11	Doubling plate	
	A32	Transverse sliding socket		D12	Transverse double doubling plate	
	A33	Transverse sliding double socket		D13	Longitudinal double doubling plate	
	A34	Longitudinal sliding double socket		E11	Weldable cone	
	B11	Dovetail foundation		E12	Weldable cone with hole	
	B12	Double dovetail foundation				
	F11-L	Left hand dovetail twistlock		F21-L	Left hand manual twistlock	
	F11-R	Right hand dovetail twistlock		F21-R	Right hand manual twistlock	
	F12-L	Left hand manual bottom twistlock		F22	Semi-automatic twistlock	

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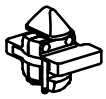
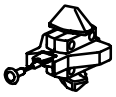
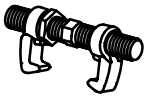
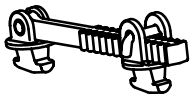
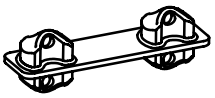
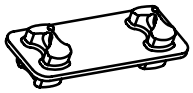
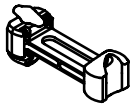
Table 1 *(continued)*

Type	Code	Name	Illustration	Code	Name	Illustration
Loose fitting	F12-R	Right hand manual bottom twistlock		F31	Midlock	
	F13	Semi-automatic bottom twistlock		G11	Bridge fitting	
	G12	Rack adjusting bridge fitting		H23	Longitudinal double stacker	
	H11	Bottom stacker		H31	Hanging stacker	
	H21	Single stacker		H32	Flangeless hanging stacker	
	H22	Transverse double stacker		H33	Hanging double stacker	

4.1.3 Lashing fittings

The structural types of lashing fittings are given in Table 2.

Table 2 — Structural types of lashing fittings

Type	Code	Name	Illustration	Code	Name	Illustration
Fixed fitting	I11	D-ring		J22	Slewing lashing plate	
	J11	Lashing plate		K11	Single guide fitting	
	J12	Double lashing plate		K12	Double guide fitting for platform	
	J21	Limit lashing plate		K13	Double guide fitting	

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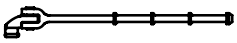
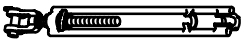
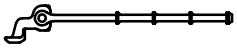
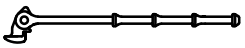
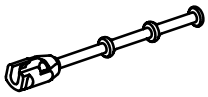
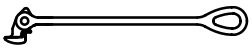
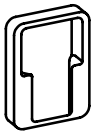
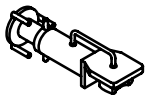
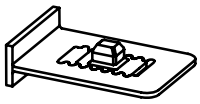
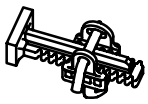
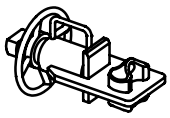
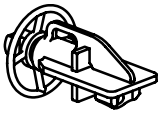
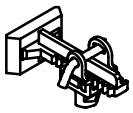
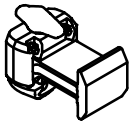
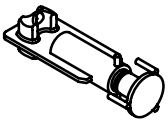
Table 2 *(continued)*

Type	Code	Name	Illustration	Code	Name	Illustration
Loose fitting	L11	Hook turn-buckle		M13	Knob vertical lashing rod	
	L12	Knob turn-buckle		M14	External lashing rod	
	M11	Knob lash-ing rod		M21	Knob extension lashing rod	
	M12	Eye lashing rod		M22	Eye extension lashing rod	

4.1.4 Buttress fittings

The structural types of buttress fittings are given in Table 3.

Table 3 — Structural types of buttress fittings

Type	Code	Name	Illustration	Code	Name	Illustration
Fixed fit-ting	N11	Raised counter bearing		N31	Flush dovetail counter bearing	
	N21	Flush counter bearing				
Loose fit-ting	O11	Compression top support		O22	Rack adjusting compression intermediate support	
	O12	Rack adjusting Compression top support		O23	Tension/com-pression interme-diate support	
	O13	Tension/com-pression top support		O24	Rack adjusting tension/compres-sion intermediate support	
	O14	Rack adjusting tension/compres-sion top support		O31	Hanging com-pression interme-diate support	
	O21	Compression intermediate support				

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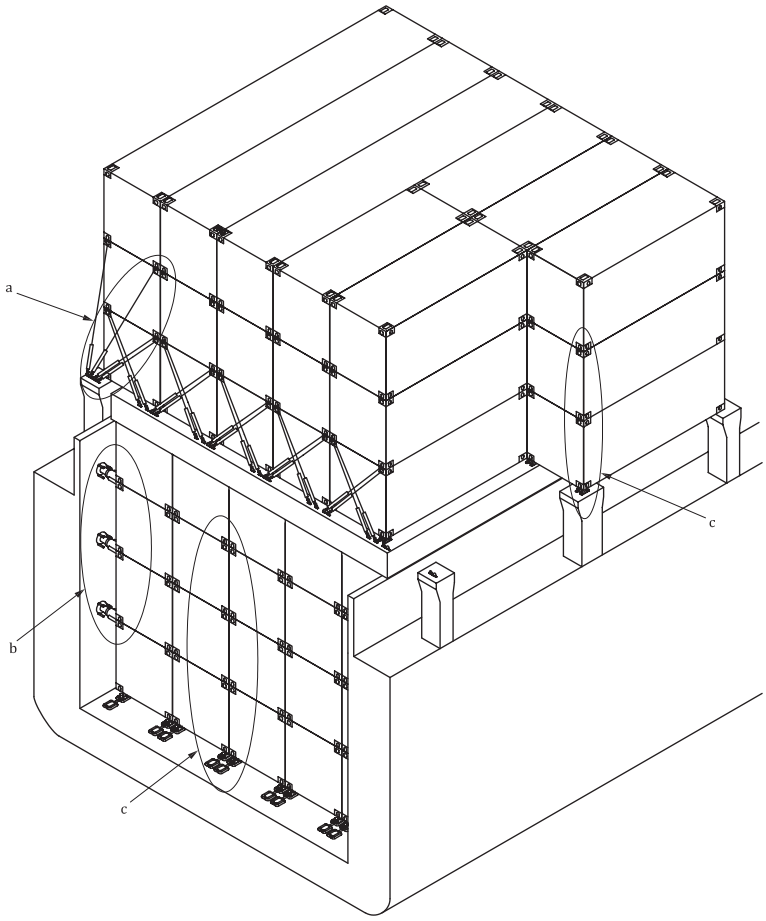
4.2 The basic combination types for installation are given in Figures 1 and 2.



Key

a Combination type of lashing fittings.

b Combination type of buttress fittings.

c Combination type of securing fittings.

Figure 1 — Basic types of container securing (I)

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